

Date: Tuesday, 10/02/2009 2:25:33 PM  
 User: Julie Dawson

## Process Sheet

<b>Customer</b> : CU-DAR001 Dart Helicopters Services	<b>Drawing Name</b> : HELI ACCESS STEP RH HEAVY DUTY
<b>Job Number</b> : 45598	
<b>Estimate Number</b> : 12947	
<b>P.O. Number</b> :	
<b>This Issue</b> : 10/02/2009 <b>S.O. No.</b> :	<b>Part Number</b> : D412630042 <i>D2812 Rev B</i>
<b>Prsht Rev.</b> : NC	<b>Drawing Number</b> : D2812 REV.B
<b>First Issue</b> : / /	<b>Project Number</b> : N/A
<b>Previous Run</b> : 45598	<b>Drawing Revision</b> : M
	<b>Material</b> :
<b>Written By</b> :	<b>Due Date</b> : 01/03/2009 <b>Qty:</b> 1 <b>Um:</b> Each
<b>Checked &amp; Approved By</b> : <i>JLD 09-02-10</i>	
<b>Comment</b> : Est Rev:F Now in Coss 07-07-17 JLM Verified By:EC Est rev:G 09-02-10 rev.b as per dwg DD verified by:JLM	

## Additional Product

Job Number:



<b>Seq. #:</b>	<b>Machine Or Operation:</b>	<b>Description :</b>
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1.0	DC	DOCUMENT CONTROL
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**Comment:** DOCUMENT CONTROLPhotocopy bluefile & type labels per PPPD412-630-012 CHG *007* *PN* *ECN 09-5/12* *W*

2.0	D2622120C	Step Extrusion
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**Comment:** Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Qty Part # Description Batch:

1 D2622-120C Extrusion

*B49064*

Check Material for any Dents or Defects

*SAD 09-02-12*

3.0	LARGE FAB 1	LARGE FABRICATION RESOURCE 1
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**Comment:** LARGE FABRICATION RESOURCE 1

1-Cut D2622 extrusion to 88.12" long as per Dwg D2812

2-Deburr and bevel ends for welding

*SAD 09-02-12**(1)*

4.0	QC5	INSPECT WORK TO CURRENT STEP
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**Comment:** INSPECT WORK TO CURRENT STEP*809/02/12*

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

Date: Tuesday, 10/02/2009 2:25:33 PM  
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## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: HELI ACCESS STEP RH HEAVY DUTY

Job Number: 45598

Part Number: D28120444  
D412830012

Job Number:



Seq. #: Machine Or Operation: Description :

5.0 D2875 End Plate



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

End Plate

Pick:

Qty	Part number	Description
1	D2875	End Cap

Batch  
B45868

09-03-06

6.0 LARGE FAB 1 LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

1-Weld end cap as per Dwg D2812

2-Grind end cap welds flush

3-apply magna-bond 6898 between mating surfaces where indicated

4-apply magna-bond Batch:

4-assemble arms as per dwg

09/02/05

*[Handwritten scribbles]*

P10

09-03-06

7.0 QC9 VISUAL WELDING INSPECTION



Comment: VISUAL WELDING INSPECTION

see step # 21 5/13/6

8.0 QC5 INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

see step # 22 5/13/6

9.0 HAND FINISHING1 HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

SAD 09-03-04

10.0 QC3 INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

09-03-04

11.0 D27954 Arm, RH



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

Arm RH

Pick:

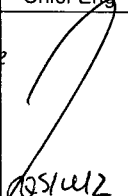
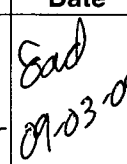
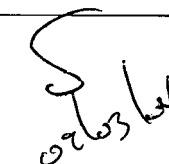
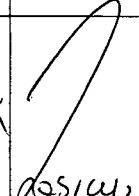
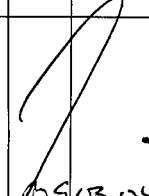
Qty	Part number	Description
1	D2795-4	Arm

Batch

*[Handwritten signature]*

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: D2812-044 UP PAR #: NIA Fault Category: Prod./Fab. Lrg NCR: (Yes) No DQA: D Date: 09/04/02  
 Resolution: REWORK Disposition: REWORK QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR: <u>45598</u>		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
09-03-04	6.0	Step ends were cut opposite to drawing. They were cut as a 350 style step would be. Dwg views were mis-interpreted, when cutting & inspecting. R.C. Lack of attention in step 3.0 & 4.0		Identify the step material with it's correct batch # and restock for a short step Replace the step: cut in spec dwg Retrain on how to interpret dwg views.	 09-03-04	 09-03-04		 09-03-04

NOTE: Date & initial all entries

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## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: HELI ACCESS STEP RH HEAVY DUTY

Job Number: 45598

Part Number: D412030012 *2820441*

Job Number:



Seq. #:

Machine Or Operation:

Description :

12.0

D2795044

Arm Assembly, RH



Comment: Qty.: 2.0000 Each(s)/Unit Total: 2.0000 Each(s)

Arm Assembly, RH

batch: *B45785*

*SAD 09-03-03*

13.0

D37301

Angle



Comment: Qty.: 6.0000 Each(s)/Unit Total: 6.0000 Each(s)

Angle

*B32825 B39-053*

*SAD 09-03-03*

14.0

D37411

Angle



Comment: Qty.: 6.0000 Each(s)/Unit Total: 6.0000 Each(s)

Angle

*B32825*

*SAD 09-03-03*

~~15.0~~

CR321354

Cherry Rivet



Comment: Qty.: 24.0000 Each(s)/Unit Total: 24.0000 Each(s)

Cherry Rivet

*B# 107939*

*SAD 09-03-04*

~~16.0~~

MS20470AD516

Rivet



Comment: Qty.: 12.0000 Each(s)/Unit Total: 12.0000 Each(s)

Rivet

*B# 107100*

*SAD 09-03-03*

17.0

LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

1-apply magnabond 6398 between mating surfaces where indicated

AIR magnabond Batch: *M108966*

2-assemble arms and angles as per dwg

*9/30/03/03 (3)*

*SAD 09-03-03 (1)*

18.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

*8/26/05 (8) RH*

19.0

D2875

End Plate



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

End Plate

batch: *311351*

*9/2/09-03-06*

W/O:		ESTIMATE: 12947							WORK ORDER CHANGES	
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector			
05/03/03	15.0	QC 5 After riveting step Arm ass'y perm. Change	NA	09/04/17		05/03/03	09/03/03			

Part No: D2812-044 PAR #: N/A Fault Category: Prod/As. LG. NCR: (Yes) No DQA: A Date: 09/04/22  
 Resolution: Re-work Disposition: Re-work QA: N/C Closed: A Date: 09/04/22

NCR: <u>45598</u>		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
9/3/5	# 16.	During inspection Found 8 Rivets that are installed completely <del>perpendicular</del> wrong.	[Signature]	- Drill out affected Rivets. (8)	[Signature]	S 9/3/5	[Signature]	S 9/3/5
				- inspect hole size after Removal Rivet. (QC only)	[Signature]	S 9/3/5		
				- Re closing if needed.	[Signature]			
		Rivets are cracked and not sitting flat.		- Re install CR32135-4 BA 107939	[Signature] 09/03/05	S 09/03/05		S 9/3/5

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## Process Sheet

Customer: CU-DAR001: Dart Helicopters Services

Drawing Name: HELI ACCESS STEP RH HEAVY DUTY

Job Number: 45598

Part Number: D442630012

Job Number:



Seq. #:

Machine Or Operation:

Description :

20.0

LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

1- Weld end cap as per Dwg D2812

2- grind weld flush as per dwg

3- realodine end cap only

09-03-06

21.0

QC9

VISUAL WELDING INSPECTION



Comment: VISUAL WELDING INSPECTION

PD 09-03-06

22.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

09/03/06 +1RH

23.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat Green Sandtex (Ref: 4.3.5.8) as per QSI 005 4.3

Touch up Alodine

09-03-06

START TIME:

8:05

OVEN TEMPERATURE:

320°

FINISH TIME:

8:35

MD / BR

09/03/10

24.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

SA

25.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: Hand Finish

Wing Walk per Dwg D2812 and QSI 005 4.4

26.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

NK

27.0

PACKAGING 1

PACKAGING RESOURCE #1

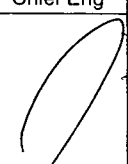
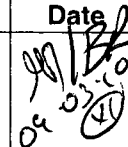

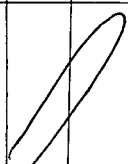
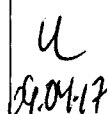
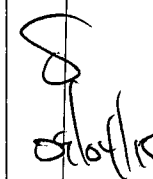


Comment: PACKAGING RESOURCE #1

Pick Assembly Kit

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D2812-044 UP PAR #: N/A Fault Category: Prod/Finishing NCR: (Yes) No DQA: S Date: 09/04/22  
 Resolution: re-work Disposition: re-work QA: N/C Closed: D Date: 09/04/22

NCR: <u>45598</u>		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
09-03-10	23.0	Parts were powder coated white, not as instructed.  R.C: lack of attention to order	 09/03/22	Send entire step with 320. pre-heat & powder coat green per w/o change.  <u>M 18/44 GREEN</u>	 09/03/22		 09/03/22	 09/03/22
				Customer cancelled stock - stock step weldment - unprinted D2817-044UP	 09/04/22			 09/04/22

NOTE: Date & initial all entries



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## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: HELI ACCESS STEP RH HEAVY DUTY

Job Number: 45598

Part Number: D412630012

Job Number:



Seq. #:	Machine Or Operation:	Description :
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28.0	D2012107	Clevis
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Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)  
Clevis  
Batch: \_\_\_\_\_

29.0	D2022101	Spacer
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Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)  
Spacer  
Batch: \_\_\_\_\_

30.0	D2652	Bushing
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Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)  
Bushing  
Batch: \_\_\_\_\_

31.0	D2803042	Bracket Assembly
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Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)  
Bracket Assembly  
Batch: \_\_\_\_\_

32.0	D2804042	Bracket Assembly
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Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)  
Bracket Assembly  
Batch: \_\_\_\_\_

33.0	D2807041	Door prop
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Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)  
Support Prop  
Batch: \_\_\_\_\_

34.0	D28103	Strut
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Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)  
Strut  
Batch: \_\_\_\_\_

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

Date: Tuesday, 10/02/2009 2:25:34 PM  
User: Julie Dawson

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: HELI ACCESS STEP RH HEAVY DUTY

Job Number: 45598

Part Number: D412630012 *W*

Job Number:



Seq. #:

Machine Or Operation:

Description :

35.0

D2813

Washer



Comment: Qty.: 3.0000 Each(s)/Unit Total : 3.0000 Each(s)

Washer

Batch: \_\_\_\_\_

36.0

D2990042

Bracket Assembly RH



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Bracket Assembly LH

Batch: \_\_\_\_\_

37.0

AN320A

Bolt



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

Bolt

Batch: \_\_\_\_\_

38.0

AN410A

Bolt



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Bolt

Batch: \_\_\_\_\_

39.0

AN816

Bolt



Comment: Qty.: 3.0000 Each(s)/Unit Total : 3.0000 Each(s)

Bolt

Batch: \_\_\_\_\_

40.0

AN3108

Nut



Comment: Qty.: 3.0000 Each(s)/Unit Total : 3.0000 Each(s)

Nut

Batch: \_\_\_\_\_

41.0

MS24665285

Cotter Pins



Comment: Qty.: 3.0000 Each(s)/Unit Total : 3.0000 Each(s)

Cotter Pins

Batch: \_\_\_\_\_

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

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## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: HELI ACCESS STEP RH HEAVY DUTY

Job Number: 45598

Part Number: D412630012 *ul*

Job Number:



Seq. #:	Machine Or Operation:	Description :
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42.0	AN960JD10	Washer
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Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)  
Washer  
Batch: \_\_\_\_\_

43.0	AN960JD416	Washer
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Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)  
Washer  
Batch: \_\_\_\_\_

44.0	AN960JD816	1/2" washer, Alum
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Comment: Qty.: 6.0000 Each(s)/Unit Total : 6.0000 Each(s)  
1/2" washer, Alum  
Batch: \_\_\_\_\_

45.0	MS21042L3	Nut
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Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)  
Nut  
Batch: \_\_\_\_\_

46.0	MS21042L4	Nut
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Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)  
Nut  
Batch: \_\_\_\_\_

47.0	MS24693S280	Screw
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Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)  
Screw  
Batch: \_\_\_\_\_

48.0	SMALL FAB 1	SMALL & MEDIUM FAB RESOURCE 1
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Comment: SMALL & MEDIUM FAB RESOURCE 1  
Assemble as per Inn D412-630

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

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## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: HELI ACCESS STEP RH HEAVY DUTY

Job Number: 45598

Part Number: D412630012

Job Number:



Seq. #:

Machine Or Operation:

Description :

49.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

50.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1  
Pick Packing Kit

51.0

D2012107

Clevis



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)  
Clevis  
Batch: \_\_\_\_\_

52.0

D2022101

Spacer



Comment: Qty.: 2.0000 Each(s)/Unit Total: 2.0000 Each(s)  
Spacer  
Batch: \_\_\_\_\_

53.0

D28061

Bushing



Comment: Qty.: 4.0000 Each(s)/Unit Total: 4.0000 Each(s)  
Bushing  
Batch: \_\_\_\_\_

54.0

D28063

Bushing



Comment: Qty.: 2.0000 Each(s)/Unit Total: 2.0000 Each(s)  
Bushing  
Batch: \_\_\_\_\_

55.0

AN410A

Bolt



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)  
Bolt  
Batch: \_\_\_\_\_

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



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## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: HELI ACCESS STEP RH HEAVY DUTY

D7812-0446

Job Number: 45598

Part Number: D412630012

Job Number:



Seq. #:	Machine Or Operation:	Description :
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56.0	AN415A	Bolt
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Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)  
Bolt  
Batch: \_\_\_\_\_

57.0	AN515A	Bolt
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Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)  
Bolt  
Batch: \_\_\_\_\_

58.0	AN960JD416	Washer
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Comment: Qty.: 8.0000 Each(s)/Unit Total : 8.0000 Each(s)  
Washer  
Batch: \_\_\_\_\_

59.0	AN960JD516	Washer
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Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)  
Washer  
Batch: \_\_\_\_\_

60.0	MS21042L4	Nut
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Comment: Qty.: 5.0000 Each(s)/Unit Total : 5.0000 Each(s)  
Nut  
Batch: \_\_\_\_\_

61.0	MS21042L5	Nut
------	-----------	-----



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)  
Nut  
Batch: \_\_\_\_\_

62.0	QC4	INSPECT 100% KITS FOR COMPLETENESS
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Comment: INSPECT 100% KITS FOR COMPLETENESS

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

Date: Tuesday, 10/02/2009 2:25:34 PM  
User: Julie Dawson

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: HELI ACCESS STEP RH HEAVY DUTY

Job Number: 45598

Part Number: ~~D412630012~~ *52812-0440*

Job Number:



Seq. #:

Machine Or Operation:

Description :

63.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and pack for shipping as per PPP ~~D412-630-012~~ *52812-0440*

Location: \_\_\_\_\_

PPP Rev: \_\_\_\_\_

*FG*

*8/809/04/15 (X1)*

64.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

*09/04/15*

Job Completion



*u 09-04-15*

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

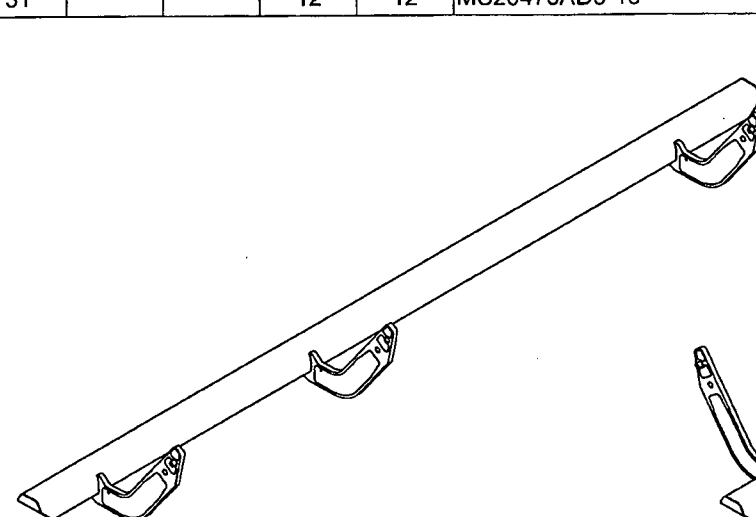
Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

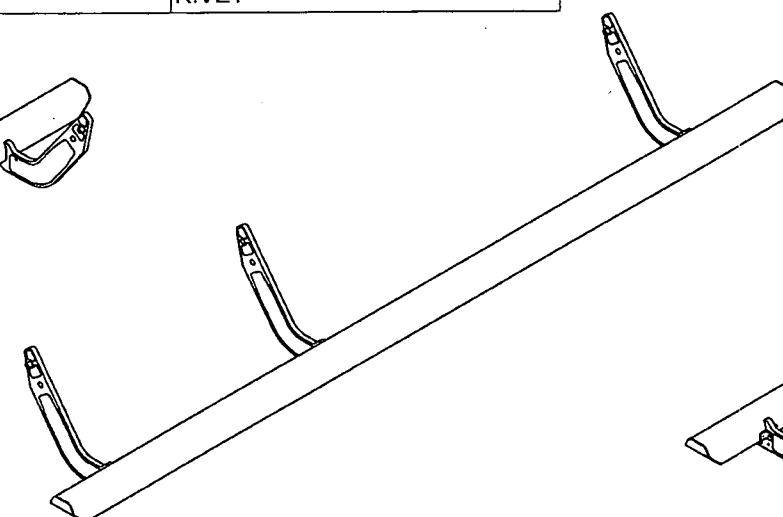
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

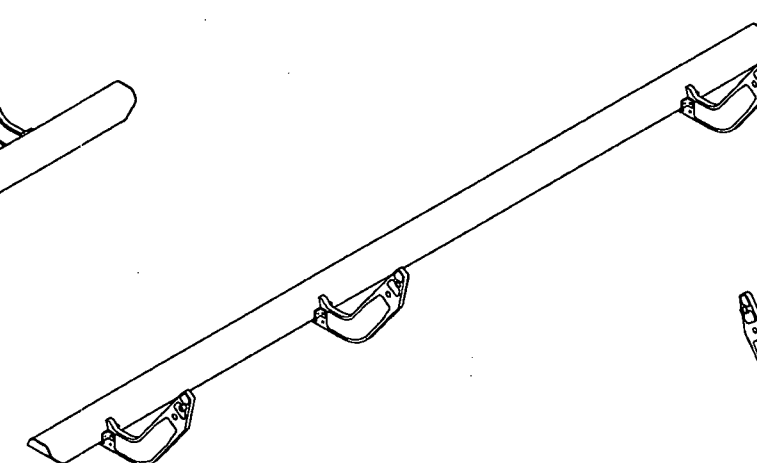
ITEM No.	QTY. -041	QTY. -042	QTY. -043	QTY. -044	PART NUMBER	DESCRIPTION
1	X				D2812-041	STEP WELDMENT
2		X			D2812-042	STEP WELDMENT
3			X		D2812-043	STEP ASSEMBLY
4				X	D2812-044	STEP ASSEMBLY
11	1	1	1	1	D2812-1	STEP
15	1				D2795-1	ARM
16		1			D2795-2	ARM
17			1		D2795-3	ARM
18				1	D2795-4	ARM
19	2				D2795-041	ARM ASSEMBLY
20		2			D2795-042	ARM ASSEMBLY
21			2		D2795-043	ARM ASSEMBLY
22				2	D2795-044	ARM ASSEMBLY
19	2	2	2	2	D2875	END PLATE
20			6	6	D3730-1	ANGLE
21			6	6	D3741-1	ANGLE
30			24	24	CR3213-5-4	RIVET
31			12	12	MS20470AD5-16	RIVET



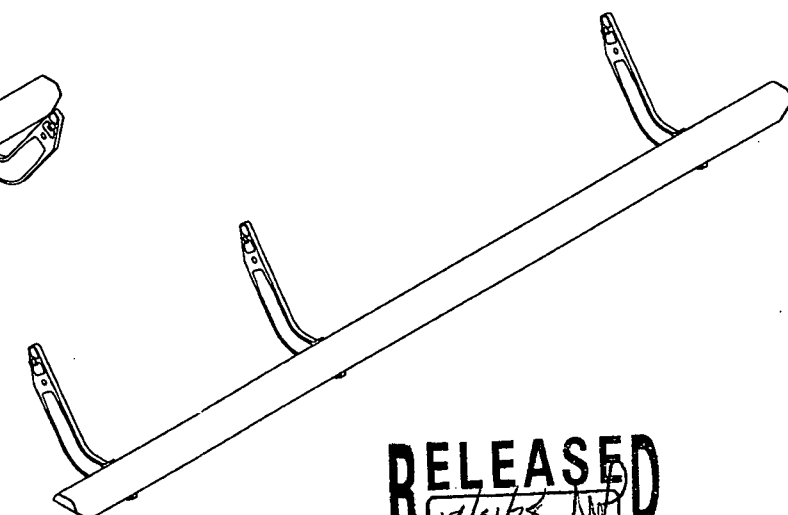
**D2812-041 STEP WELDMENT**



**D2812-042 STEP WELDMENT**



**D2812-043 STEP ASSEMBLY**



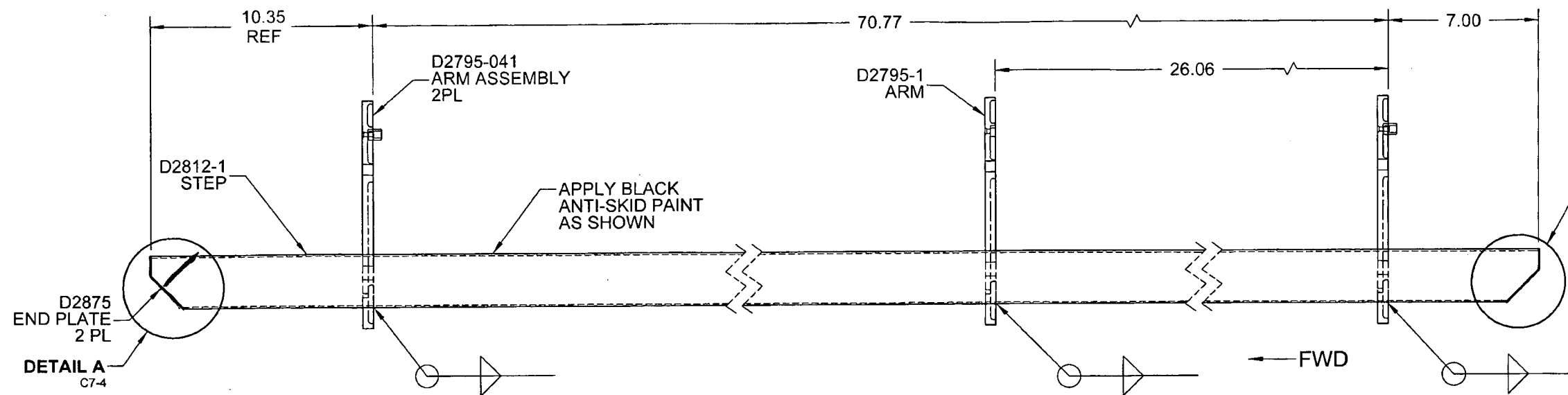
**D2812-044 STEP ASSEMBLY**

**RELEASED**  
09/01/08 WJP

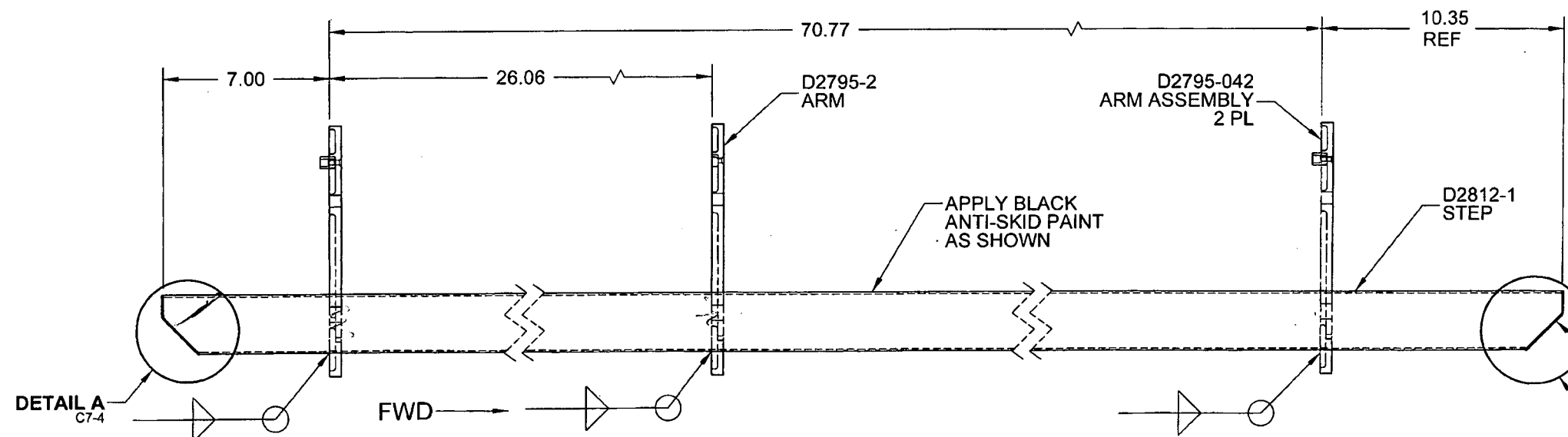
B	REDRAWN IN SOLIDWORKS TO CURRENT DESIGN STANDARDS. -041 & -042 UNCHANGED. ADDED -043 & -044 TO ELIMINATE NEED FOR WELDING.	AJS	08.10.23
A	NEW ISSUE	DS	00.11.03
REV.	DESCRIPTION	BY	DATE
DESIGN	DS	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA DRAWING NO. <b>D2812</b> TITLE <b>STEP ASSEMBLY</b> SCALE <b>NTS</b> COPYRIGHT © 2000 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	
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CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	08.10.23		

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**D2812-041 STEP WELDMENT**  
(POCKETS FACE AFT)

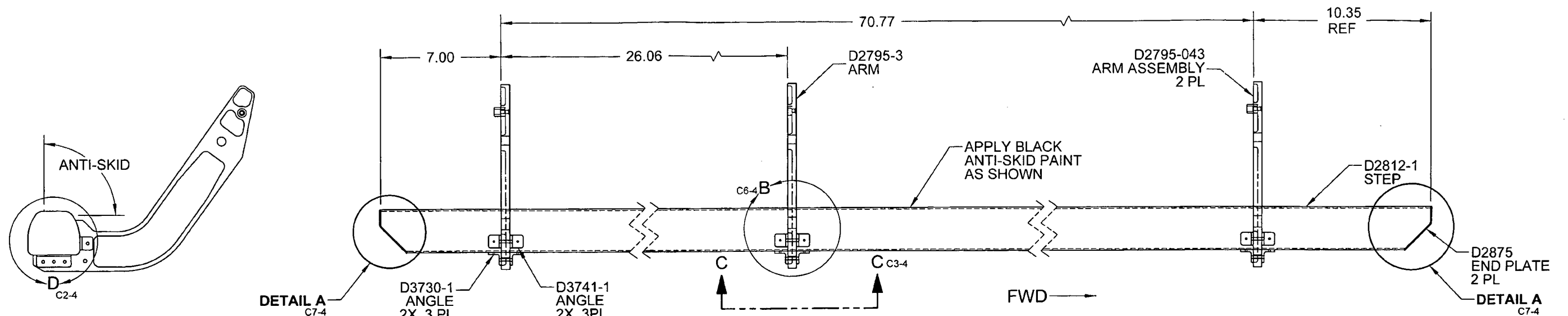


**D2812-042 STEP WELDMENT**  
(POCKETS FACE AFT)

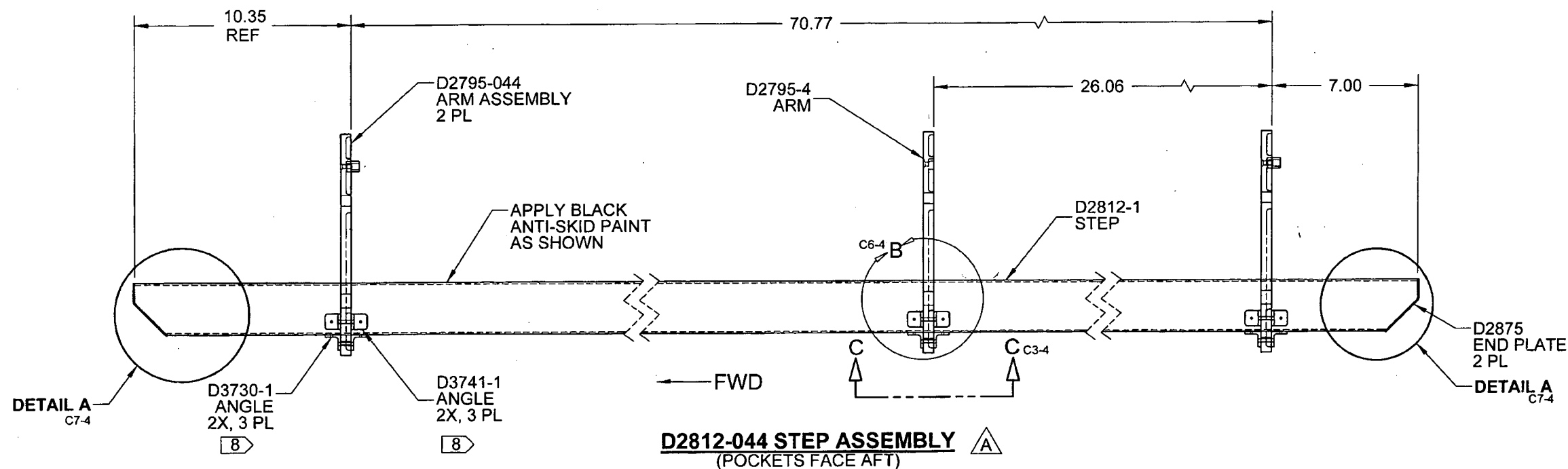
- NOTES:**
- 1) MATERIAL: N/A
  - 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
POWDER COAT GLOSS WHITE (4.3.5.1) OR  
GREY SANDTEX (4.3.5.6) OR  
GREEN SANDTEX (4.3.5.8) PER DART QSI 005 4.3  
APPLY BLACK ANTI-SKID PER DART QSI 005 4.4 WHERE INDICATED
  - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK SHARP EDGES: N/A
  - 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D2812-04X" USING FINE POINT PERMANENT INK MARKER
  - 7) WEIGHT: 10.12 lbs
  - 8) WELD PER QSI 004 UNLESS OTHERWISE NOTED.

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DE APPR.		<b>STEP ASSEMBLY</b>	NTS
DATE	08.10.23	<small>COPYRIGHT © 2000 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	



**D2812-043 STEP ASSEMBLY** A  
(POCKETS FACE AFT)



**D2812-044 STEP ASSEMBLY** A  
(POCKETS FACE AFT)

**NOTES:**

- 1) MATERIAL: N/A
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
POWDER COAT GLOSS WHITE (4.3.5.1) OR  
GREY SANDTEX (4.3.5.6) OR  
GREEN SANDTEX (4.3.5.8) PER DART QSI 005 4.3  
APPLY BLACK ANTI-SKID PER DART QSI 005 4.4 WHERE INDICATED
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D2812-04X" USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: 10.59 lbs
- 8) APPLY MAGNABOND 6398 BETWEEN MATING SURFACES WHERE INDICATED

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MFG. APPR.		<b>D2812</b>	SHEET 3 OF 4
APPROVED		TITLE	SCALE
DE APPR.		<b>STEP ASSEMBLY</b>	NTS
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8

7

6

5

4

3

2

1

D

C

B

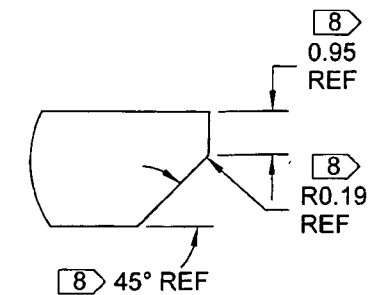
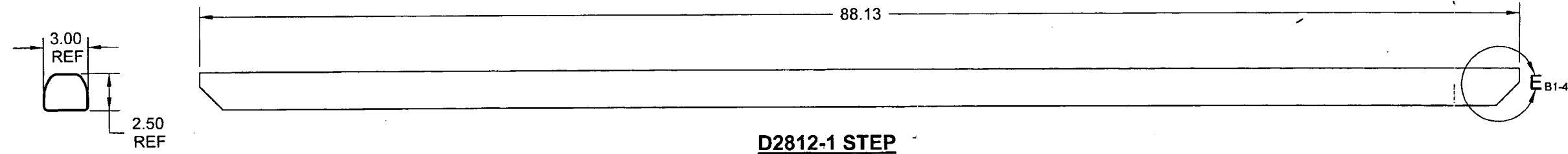
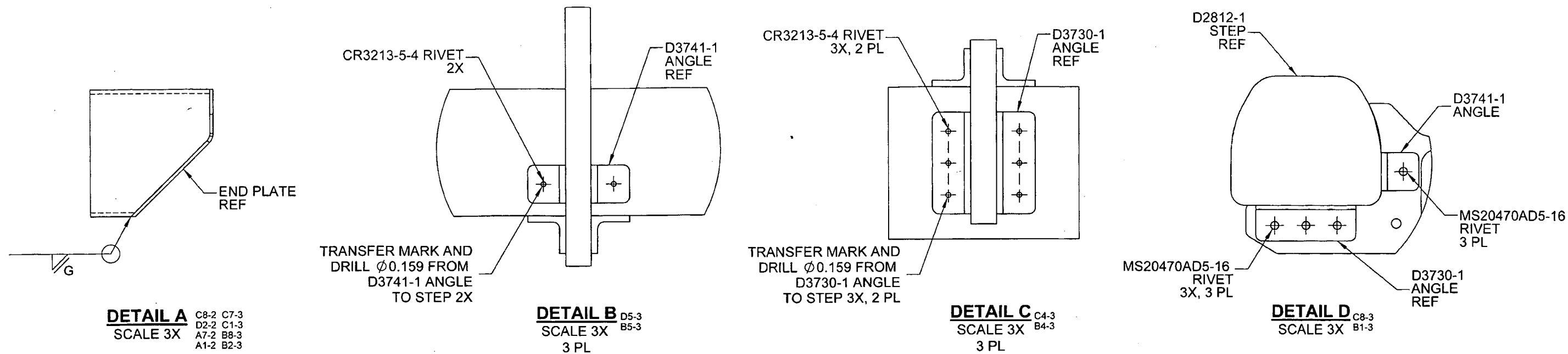
A

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C

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A



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09/01/08 NIP 25598

# D2812-1 NOTES:

- 1) MATERIAL: MAKE FROM D2622 EXTRUSION
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 6.46 lbs
- 8) SHAPE TO FIT D2875 END PLATE

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## L Lacelle

---

**From:** Bill Beckett [bbeckett@dartaero.com]  
**Sent:** March 12, 2009 7:24 AM  
**To:** 'L Lacelle'  
**Subject:** RE: Texas Aviaton Cancelled order / RE: 8009705

agreed

---

**From:** L Lacelle [mailto:llacelle@dartaero.com]  
**Sent:** March 12, 2009 7:06 AM  
**To:** 'Bill Beckett'  
**Subject:** RE: Texas Aviaton Cancelled order / RE: 8009705

I could stock them as UP (unpainted) for now, then take them out if we ever sell them.  
LL

---

**From:** Bill Beckett [mailto:bbeckett@dartaero.com]  
**Sent:** March 11, 2009 4:49 PM  
**To:** 'L Lacelle'  
**Subject:** RE: Texas Aviaton Cancelled order / RE: 8009705

Linda,  
can we leave them as is? I would rather not invest more \$\$ into these than we already have. Whatever we do will probably be wrong and we'll just have to re-work.  
Bill

---

**From:** L Lacelle [mailto:llacelle@dartaero.com]  
**Sent:** March 11, 2009 3:32 PM  
**To:** 'Bill Beckett'  
**Subject:** RE: Texas Aviaton Cancelled order / RE: 8009705

Want them painted white. grey or green to put in stock (drgw has all 3 colors)  
LL

---

**From:** Bill Beckett [mailto:bbeckett@dartaero.com]  
**Sent:** March 11, 2009 3:08 PM  
**To:** 'Heather Mahon'  
**Cc:** 'Shirley Hay'; 'Peggy McDonald'; 'L Lacelle'  
**Subject:** RE: Texas Aviaton Cancelled order / RE: 8009705

Heather,  
I agree with the 10%. This is basically a special order item.  
Bill

---

**From:** Heather Mahon [mailto:heather@darths.com]  
**Sent:** March 11, 2009 3:02 PM  
**To:** 'L Lacelle'; 'Bill Beckett'  
**Cc:** 'Shirley Hay'; 'Peggy McDonald'

12/03/2009

**Subject:** Texas Aviation Cancelled order / RE: 8009705

Hi Linda,

After discussing this with Texas Aviation, they have advised that their customer will not require these Heli-Access Steps and to cancel the order.

Bill,

I would suggest that we charge Texas Aviation a 10% re-stocking fee in this situation.

Please advise how you wish to proceed. I await your reply

I wish you blue skies and calm winds!

Heather J. Mahon  
North American Sales Manager

**DART Helicopter Services, LLC**

Tel: 1.613.632.3336

Tol: 1.800.556.4166

Fax: 1.613.632.4443

Cell: 1.613.796.5999

heather@darths.com

www.darthelicopterservices.com

---

**From:** L Lacelle [mailto:llacelle@dartaero.com]

**Sent:** March 11, 2009 12:46 PM

**To:** 'Shirley Hay'; 'Heather Mahon'

**Subject:** RE: 8009705

yeah, she said she'd get back to me...see attached drwg, can be painted green, grey or white... This is why I asked.

LL

---

**From:** Shirley Hay [mailto:shirley@darths.com]

**Sent:** March 11, 2009 12:42 PM

**To:** L Lacelle

**Subject:** RE: 8009705

Well..... when Texas went back to the customer they have now decided to cancel the order. I think Heather had been talking to you about it.

*Shirley Hay*

Sales Associate

**DART Helicopter Services, LLC**

---

**From:** L Lacelle [mailto:llacelle@dartaero.com]

**Sent:** March 11, 2009 12:31 PM

**To:** Heather Mahon

**Cc:** Shirley Hay

**Subject:** 8009705

Hi,

Any news on the color of the steps?

12/03/2009

Thank You,  
Linda Lacelle  
Production Manager  
Dart Aerospace Ltd

***"We provide solutions"***

---

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